

**REMARKS**

Claims 12, 17, 18, 20, 22, 24, 26, 28, 30, and 32 are pending in this application. By this Amendment, claim 12 has been amended and claim 32 has been added. Support for the amendment to claim 12 and new claim 32 can be found at, for example, paragraph [0016]. No new matter is added. Applicants respectfully request reconsideration and prompt allowance of the pending claims in view of at least the following remarks.

**I. Rejection Under §112, Second Paragraph**

The Office Action rejects claims 12, 17, 18, 20, 22, 24, 26, 28 and 30 under 35 U.S.C. §112, second paragraph. The Office Action asserts that claim 12 is indefinite as it is unclear if the storage temperature of 40°C is included as part of the claimed process of storing a foamed resin for four weeks. Claim 12 has been amended in view of this rejection. Specifically, claim 12 has been amended to remove the phrase "storing a foamed resin for four weeks" because the storing step may not be included (i.e., is not essential) in the process. In view of this amendment, Applicants respectfully submit that a skilled artisan would not confuse the step of storing the foamed resin with the evaluation step. Accordingly, Applicants respectfully request withdrawal of the rejection.

**II. Rejections Under §103(a)****A. Rejection Over Noguchi In View Of Kitano, Evidenced By Matsumoto**

The Office Action rejects claims 12, 17, 20, 22, 24, 26, and 28 under 35 U.S.C. §103(a) as being obvious over U.S. Patent Application Publication No. 2003/0143370 to Noguchi et al. (hereinafter "Noguchi") in view of U.S. Patent No. 5,861,214 to Kitano et al. (hereinafter "Kitano"), as evidenced by product data for Matsumoto Microsphere F series foamed resins (hereinafter "Matsumoto"). The rejection is respectfully traversed.

Noguchi fails to disclose and would not have rendered obvious "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin when stored

at 40°C for 4 weeks is 8% to 12% of the weight of the foamed resin and in which a weight decrease ratio of the gas included in the foamed resin when stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored," as recited in claim 12. The Office Action acknowledges that Noguchi fails to disclose specific details about the foamed resin. However, the Office Action asserts that Kitano cures the deficiencies of Noguchi.

Yet, Kitano fails to disclose and would not have rendered obvious this feature of claim 12. Specifically, the Office Action asserts that Kitano discloses a foamed resin with 15 wt% of a C5 gas (col. 6, Example 4). However, Kitano fails to disclose a foamed resin with 8 to 12 wt% of gas. Instead, Example 4 of Kitano discloses a foamed resin with ~15wt% of normal pentane and Comparative Example 4 of Kitano discloses a foamed resin with ~20wt% of normal pentane. Thus, Kitano fails to disclose and would not have rendered obvious "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin when stored at 40°C for 4 weeks is 8% to 12% of the weight of the foamed resin and in which a weight decrease ratio of the gas included in the foamed resin when stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored," as recited in claim 12.

Matsumoto fails to cure the deficiencies of Noguchi and Kitano. However, the Office Action fails to assert, and a review of Matsumoto fails to reveal, a disclosure that the foamed resin has a 8 to 12wt% of a gas. Thus, Matsumoto also fails to disclose and would not have rendered obvious "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin when stored at 40°C for 4 weeks is 8% to 12% of the weight of the foamed resin and in which a weight decrease ratio of the gas included in the foamed resin when stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored," as recited in claim 12.

For at least these reasons, claim 12 is patentable over Noguchi, Kitano and Matsumoto. Further, claims 17, 20, 22, 24, 26, and 28 are patentable for at least the same reasons, as well as for the additional features they recite. Accordingly, Applicants respectfully request withdrawal of the rejection.

**B. Rejection Over Noguchi In View Of Kitano, Evidenced By Matsumoto And Further Evidenced By Ahmed And Gehlsen**

The Office Action rejects claim 18 under 35 U.S.C. §103(a) as being obvious over Noguchi in view of Kitano, as evidenced by Matsumoto, as applied to claim 12 and as further evidenced by "Comparative Disposition of Acrylonitrile and Methacrylonitrile: Quantitative Whole-Body Autoradiographic Studies in Rats" to Ahmed et al. (hereinafter "Ahmed") and U.S. Patent No. 6,103,152 to Gehlsen et al. (hereinafter "Gehlsen"). The rejection is respectfully traversed.

This rejection is based on the assertion that the combination of Noguchi, Kitano and Matsumoto disclose and would have rendered obvious the features recited in independent claim 12. As discussed above, the combination of Noguchi, Kitano and Matsumoto does not disclose and would not have rendered obvious all the features recited in independent claim 12.

Further, Ahmed fails to make up for the deficiencies of the combination of Noguchi, Kitano and Matsumoto. Specifically, Ahmed fails to disclose and would not have rendered obvious "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin when stored at 40°C for 4 weeks is 8% to 12% of the weight of the foamed resin and in which a weight decrease ratio of the gas included in the foamed resin when stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored," as recited in claim 12. The Office Action asserts that Ahmed discloses the structural similarity between methacrylonitrile to acrylonitrile. However, the Office Action fails to assert, and a

review of Ahmed fails to reveal, a disclosure that a foamed resin has a 8 to 12wt% of a gas. Instead, Ahmed merely discloses the overlapping effect of methacrylonitrile and acrylonitrile on rats.

Gehlsen fails to make up for the deficiencies of the combination of Noguchi, Kitano and Matsumoto. Specifically, Gehlsen fails to disclose and would not have rendered obvious "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin when stored at 40°C for 4 weeks is 8% to 12% of the weight of the foamed resin and in which a weight decrease ratio of the gas included in the foamed resin when stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored," as recited in claim 12. The Office Action asserts that Gehlsen discloses that the tensile and cohesive strength of resin is directly dependent on the acrylonitrile content in the resin shell. However, the Office Action fails to assert, and a review of Gehlsen fails to reveal, a disclosure that a foamed resin has a 8 to 12wt% of a gas. Instead, Gehlsen merely discloses the acrylonitrile content of resin.

Thus, for at least these reasons, the combination of Noguchi, Kitano and Matsumoto are not cured by the addition of Ahmed and Gehlsen, and the rejection of independent claim 12 should be withdrawn. Claim 18 is patentable for at least the same reasons, as well as for the additional features recited therein. Accordingly, Applicants respectfully request withdrawal of the rejection.

**C.      Rejection Over Noguchi In View Of Kitano,  
Evidenced By Matsumoto, And Further In View Of Nagata**

The Office Action rejects claim 30 under 35 U.S.C. §103(a) as being obvious over Noguchi in view of Kitano, as evidence by Matsumoto, as applied to claim 12, and further in view of U.S. Patent No. 6,440,185 to Nagata et al. (hereinafter "Nagata"). The rejection is respectfully traversed.

This rejection is based on the assertion that the combination of Noguchi, Kitano and Matsumoto disclose and would have rendered obvious the features recited in independent claim 12. As discussed above, the combination of Noguchi, Kitano and Matsumoto does not disclose and would not have rendered obvious all the features recited in independent claim 12.

Further, Nagata fails to make up for the deficiencies of the combination of Noguchi, Kitano and Matsumoto. Specifically, Nagata fails to disclose and would not have rendered obvious "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin when stored at 40°C for 4 weeks is 8% to 12% of the weight of the foamed resin and in which a weight decrease ratio of the gas included in the foamed resin when stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored," as recited in claim 12. The Office Action asserts that Nagata a shell wall thickness of 0.05 to 5μm. However, the Office Action fails to assert, and a review of Nagata fails to reveal, a disclosure that a foamed resin has a 8 to 12wt% of a gas. Instead, Nagata merely discloses a resinoid grinding wheel including an organic hollow material filler, which has an organic shell.

Thus, for at least these reasons, the combination of Noguchi, Kitano and Matsumoto are not cured by the addition of Nagata, and the rejection of independent claim 12 should be withdrawn. Claim 30 is patentable for at least the same reasons, as well as for the additional features recited therein. Accordingly, Applicants respectfully request withdrawal of the rejection.

### **III. New Claim 32**


New claim 32 is patentable for at least the same reasons as claim 12 is patentable over the applied references, as well as for the additional features recited therein.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:  
Request for Continued Examination

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